CANYON FERRY WALLEYE

Management Goal: Rely on walleye to maintain a self-sustaining sport fishery to enhance the summer fishery and provide an additional component to the winter fishery.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Walleye population consists of mostly smaller sized fish and some trophy fish with fewer fish in middle size ranges.
- Current strategies maximize angler harvest to manage growth of the walleye population.
- Walleye growth rates have slowed in response to declines in forage abundance, however growth rates are still higher than in most walleye waters in Montana.

ISSUES & CONCERNS

- High level of angler harvest could limit recruitment of fish into larger size groups.
- Forage abundance may not be adequate to support an increase in walleye abundance.

- <u>Alternative 1</u>:(FWP Preferred) Reduce bag limit to 10 fish daily, 20 in possession with only one fish greater than 28-inches. Maintain 10 fish limit for three years in order to evaluate any changes to walleye population structure.
 - This alternative will reduce overall angler exploitation of walleye, while continuing to actively manage walleye to reduce predation of other desirable sport fish species. FWP data show that high bag limits may limit the number of fish that recruit to larger size groups. Reducing the bag limit also reduces overall exploitation, which may recruit more fish to more desirable size classes. By limiting harvest to only one fish greater than 28-inches maintains a trophy component to the fishery. Adaptive management strategies allow changes to the bag limit as walleye abundance changes.
- <u>Alternative 2</u>: Reduce bag limit to 10 fish daily, 20 in possession with only 4 fish greater than 16-inches and one fish greater than 28-inches.
 - This alternative further reduces angler exploitation with additional restrictions to angler harvest. Having only 4 fish greater than 16-inches will reduce harvest of larger sized fish while only one fish greater than 28-inches will maintain a trophy component. Additional protection of larger-sized fish offered by this alternative may conflict with management strategies for other sport fish species. This alternative proposes more complex regulations to achieve what might be attained by a simpler overall reduction in harvest (i.e., Alternative 1).
- Alternative 3: Maintain current bag limit of 20 fish daily, 40 in possession.
 - This alternative will continue to maximize angler harvest to manage the walleye population. Maximizing angler harvest reduces walleye numbers, which in turn reduces predation of other species in the reservoir. Data suggests that high harvest also may limit recruitment to larger size groups, further limiting predation by reducing average size of fish. Numbers of other desirable species (i.e., yellow perch and rainbow trout) may be increased through decreased predation by walleye.

Hauser Walleye

Management Goal: Maintain walleye as a species that provides a balanced, cost-effective fishing opportunity in Hauser.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Walleye abundance at record high levels for past three years (2006-2008).
- Not enough forage is available to support the walleye population at current levels.
- Population is dominated smaller sized, slow growing fish.
- Hauser walleye abundance is heavily influenced by walleye flushed from Canyon Ferry Dam.
- Angler catch rates for walleye are at record high levels.

ISSUES & CONCERNS

Managing walleye numbers that are appropriate for prey abundance.

- <u>Alternative 1</u>:(FWP Preferred) Increase daily bag limit to 20 fish only one over 28-inches, 40 in possession.
 - This alternative will maximize overall walleye harvest to decrease walleye abundance to levels more consistent with available forage. By decreasing overall abundance, growth rates of smaller sized fish may increase, as more forage should be available. Additional seasonal restrictions will be considered if deemed necessary.
- <u>Alternative 2</u>: Increase daily bag limit to 20 fish, 19 fish under 20-inches and only one over 28-inches, 40 in possession. No harvest of fish between 20 and 28-inches.
 - This alternative maximizes harvest of smaller sized fish, while protecting larger fish in the population. Harvest rates on Lake Helena and the Causeway can be high when conditions allow, and this alternative will protect those large fish from harvest. Improved boat access to Lake Helena could potentially increase harvest of large fish in the spring.
- <u>Alternative 3</u>: Keep current daily limit of 10 fish, only one over 28-inches, 20 in possession.
 - This alternative represents the current condition. Current levels of harvest are not enough to decrease the walleye population to numbers that can be sustained by the current forage base. Other walleye management strategies would need to be implemented with this alternative.
- Alternative 4: No daily bag limit for walleye.
 - This alternative would maximize angler harvest to the greatest extent possible.
 Unlimited harvest would attempt to reduce the effects of walleye flushed from Canyon Ferry Dam.

HOLTER WALLEYE

Management Goal: Rely on walleye to provide a cost-effective fishery that allows a moderate level of harvest while providing the opportunity to catch a trophy fish. This fishery will be reliant entirely on wild reproduction and flushing from upstream dams.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Walleye abundance is increasing to near-record levels.
- Flushing of fish from Canyon Ferry and Hauser Dams influences Holter walleye abundance.
- Angler catch rates for walleye are at record high levels.
- Walleye growth rates have slowed in relation to declines in forage abundance due to higher rates of predation.

ISSUES & CONCERNS

- Managing walleye numbers that are more appropriate for prey abundance.
- Maintaining the trophy component of the Holter walleye fishery.

- <u>Alternative 1</u>: Maintain current regulation of six fish daily, with 5 less than 20-inches and only one over 28-inches. No harvest of fish between 20 and 28-inches.
 - This alternative represents the current condition. Because of increased flushing of walleye from Canyon Ferry and Hauser, this level of harvest may be too low to maintain walleye densities consistent with forage availability. Preventing harvest of 20 to 28-inch fish protects spawning sized fish and preserves the trophy component of the fishery.
- <u>Alternative 2</u>: (FWP Preferred) Increase harvest by increasing bag limit to eight fish daily, with 7 less than 20-inches and only one over 28-inches. No harvest of fish between 20 and 28-inches.
 - o This proposed change would increase angler harvest of fish less than 20-inches. Increased flushing of walleye into Holter in recent years has led to higher numbers of smaller-sized fish. Currently, abundance of fish less than 20-inches is higher than can be supported by the forage base. Increasing harvest rates may improve walleye growth by taking some pressure off of the forage base. Preventing harvest of 20 to 28-inch fish protects spawning sized fish and preserves the trophy component of the fishery. Adaptive management strategies allow changes to the bag limit as fish populations change.
- <u>Alternative 3</u>: Increase harvest by increasing bag limit to ten fish daily, with 9 less than 20-inches and only one over 28-inches. No harvest of fish between 20 and 28-inches.
 - This alternative would further increase harvest of fish less than 20-inches, while preserving the trophy component of the fishery. The higher level of harvest proposed in this alternative may be necessary to manage walleye densities appropriate for forage abundance.

CANYON FERRY YELLOW PERCH

Management Goal: Continue to recognize the importance of yellow perch and apply management strategies to improve the current population to enhance the sport fishery and recognize the importance as a forage species.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Yellow perch are the primary forage species in Canyon Ferry and are an important component of the winter ice fishery.
- Perch abundance has decreased significantly following expansion of the walleye population.
- Perch numbers have increased slightly following record lows in 2004 and 2005, however abundance remains far below historic levels.
- Current strategies focus on minimizing impacts of angler harvest to adult perch and habitat enhancement through construction of spawning reefs.

ISSUES & CONCERNS

- Maintenance of the perch winter sport fishery.
- Ability of perch to sustain as a primary forage species.

ALTERNATIVES

No new management alternatives for perch were presented by the Citizen Workgroup. Future perch management will continue to focus on minimizing angler harvest, habitat enhancement, and explore additional strategies to increase perch abundance. Other strategies may include larger-scale habitat manipulations (e.g., modify reservoir water levels, construction of rearing areas, or construction of other artificial habitat), perch population enhancement, or predator suppression.

HAUSER YELLOW PERCH

Management Goal: Rely on yellow perch to provide a self-sustaining fishery that is based entirely on wild reproduction.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES:

- Perch numbers have declined as walleye abundance has increased.
- Perch are a primary forage species and can be an important component to the winter ice fishery.
- Perch population is limited by flushing, habitat conditions, and predation.

ISSUES & CONCERNS:

- Ability of perch to sustain as a primary forage species.
- Continued flushing of perch over Hauser Dam.

- <u>Alternative 1</u>: Lower daily angler bag and possession limit to 15 yellow perch.
 - o This alternative is similar to bag limits following extreme declines in perch abundance in Canyon Ferry in 2004. This lower limit could decrease the overall number of perch harvested, and could increase the spawning potential of the perch population by protecting more spawning sized perch.
- <u>Alternative 2</u>: Maintain current angler bag limit of 50 perch daily with no possession limit.
 - It is difficult to assess whether current levels of angler harvest has an additive effect to perch mortality in Hauser Reservoir. Other limiting factors (i.e., spawning habitat, environmental conditions, predation) may contribute more to declines in perch abundance than angler harvest. If this is the case, then maintaining a 50 fish limit on perch will have few overall negative effects to perch abundance.
- <u>Alternative 3</u>: (FWP Preferred) Lower daily angler bag limit to 25 perch daily with no possession limit.
 - This alternative would allow evaluation of angler harvest as a tool for perch management and still allow some degree of harvest. Adaptive management strategies would allow adjustment of bag limits as perch populations change.

HOLTER YELLOW PERCH

Management Goal: Rely on yellow perch to provide a cost-effective, self-sustaining fishery that is supported entirely with wild reproduction.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Historically perch have comprised a significant portion of the winter ice fishery.
- Perch are a primary forage species as well as an important sport fish.
- Perch abundance has declined following expansion of the Canyon Ferry walleye population.
- Perch population is limited by flushing, habitat conditions, and predation.

ISSUES & CONCERNS

- Ability of perch to sustain as a primary forage species.
- Maintenance of the perch winter sport fishery.

- <u>Alternative 1</u>: (FWP Preferred) Reduce daily limits of perch to 25 fish daily with no possession limit.
 - This alternative reduces the current perch limit by half, and maintains the current unlimited possession limit. Numbers of spawning sized fish may increase due to lower harvest of adult perch. Consider raising the limit if three-year average perch abundance increases above 10 per fall sinking gillnet. If three-year average perch abundance drops below 2 per fall sinking gillnet, consider additional harvest restrictions.
- <u>Alternative 2</u>: Maintain current bag limit of 50 fish daily with no possession limit.
 - Due to the fluctuating nature of naturally reproducing perch populations, it is difficult to determine if angler harvest provides an additive influence to perch mortality. Predation by walleye may be more of a limiting factor for perch recruitment than angler harvest, therefore any changes to perch bag limits will have little effect to the perch population.

HAUSER KOKANEE

Management Goal: Recognize kokanee salmon as a supplemental species to rainbow trout with poor opportunity as a viable sport species in Hauser Reservoir.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Historically, the Hauser kokanee fishery has been highly erratic.
- · Kokanee densities heavily influenced by flushing.
- Following high water runoff in 1997, all attempts at re-establishing the Hauser kokanee fishery have failed.

ISSUES & CONCERNS

- Continued flushing of kokanee from Hauser Reservoir.
- Increased predation by the growing walleye population.

- <u>Alternative 1</u>: Continue work with hatcheries to find a cost-effective solution for stocking kokanee in Hauser.
 - Since 1997, all efforts to stock kokanee in Hauser have failed. Early maturation of larger-sized fish at stocking or predation by walleye has led to no recruitment of hatchery plants.
- <u>Alternative 2</u>: Explore opportunities to construct artificial spawning facilities for kokanee.
 - Opportunities may exist for construction of artificial spawning beds placed below Canyon Ferry Dam or in other areas of Hauser. Further feasibility studies are necessary to determine the viability of such a facility, however such efforts may be worthwhile if there is enough public demand to resurrect the kokanee fishery.
- <u>Alternative 3</u>: (FWP Preferred) Eliminate stocking of kokanee in Hauser Reservoir.
 - Issues such as continued flushing loss over Hauser Dam, predation by walleyes flushed from Canyon Ferry, and poor water quality currently make the cost-effectiveness of a kokanee fishery unjustifiable. Re-establishing the kokanee fishery in the future may be considered if water quality and predator densities allow.

HOLTER KOKANEE

Management Goal: Rely on kokanee salmon flushed from Hauser Reservoir, stocking of surplus hatchery fish, and any natural reproduction that may occur in Holter Reservoir to provide limited kokanee harvest. Recognize kokanee as a supplemental fish to the sport fishery in Holter Lake.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Historically, Holter kokanee populations mirrored kokanee population trends in Hauser.
- Kokanee densities decreased following high water years in the 1990s.
- Stocking of surplus hatchery fish in recent years has been moderately successful; however angler harvest remains at low levels.

ISSUES & CONCERNS

- Continued flushing of kokanee out of Holter Reservoir.
- Increased predation by the growing walleye population.
- Availability of surplus fish to maintain a low-level kokanee fishery.

- <u>Alternative 1</u>: (FWP Preferred) Continue stocking surplus hatchery kokanee when available.
 - This alternative will maintain current management strategies for Holter kokanee. Stocking of surplus kokanee currently maintains a low-level kokanee fishery in Holter. If it is determined that kokanee abundance limits brown trout spawning stocking rates can be reduced or discontinued.
- Alternative 2: Modify stocking requests to stock kokanee in Holter annually.
 - This alternative will provide more consistency to kokanee management and population numbers. Annual stocking may lead to higher kokanee abundance in Holter, which may limit brown trout recruitment. Annual stocking would likely add some stability to kokanee fishing from year to year. If it is determined that kokanee abundance limits brown trout spawning stocking rates can be reduced or discontinued.
- Alternative 3: Discontinue kokanee stocking in Holter Reservoir.
 - Without supplemental stocking, the Holter kokanee fishery will depend on natural reproduction (which is extremely limited) and flushing of kokanee from Hauser (which is no longer a viable option for maintaining the Holter fishery). This alternative will essentially eliminate any competition with brown trout and will likely make the Holter kokanee fishery unsustainable.

MISSOURI RIVER (TOSTON – CFR) BROWN TROUT

Management Goal: Rely on brown trout to provide a resident fishery throughout the year and a migratory population of large fish that enter the river during the fall.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Extreme drought conditions from 2000-2007 negatively effected the brown trout population.
- Dewatering of spawning tributaries during critical spawning periods is a significant limiting factor.
- Attempts to stock and/or imprinting of brown trout eggs from 1992-1998 were unsuccessful.

ISSUES & CONCERNS

- Over harvest of fish during spawning period (fall).
- Dewatering of spawning and nursery habitat.
- · Limited spawning and rearing habitats.

ALTERNATIVES (No FWP Preferred Alternative)

- <u>Alternative 1</u>: Maintain current combined trout regulation, with catch and release only for brown trout between 18 and 24 inches.
 - o This alternative allows some angler harvest of brown trout, while protecting spawning sized fish. This alternative reflects current regulations.
- <u>Alternative 2</u>: Consider catch and release only for brown trout. Children age 14 and under can possess one brown trout.
 - This alternative would essentially eliminate all brown harvest in this section of the Missouri River.

CANYON FERRY BROWN TROUT

Management Goal: Increase the number of brown trout in the reservoir as an additional component to the sport fishery. .

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Drought conditions in the river and spawning tributaries have negatively effected the reservoir brown trout population.
- Habitat improvements to reservoir spawning tributaries have had little effect on brown trout numbers.

ISSUES & CONCERNS

- Dewatering of spawning and nursery habitat.
- Limited spawning and rearing habitats.

- <u>Alternative 1:</u> (FWP Preferred) Consider catch and release only regulations for Canyon Ferry. Children age 14 and under can possess one brown trout.
 - A catch and release only regulation would make Canyon Ferry brown trout bag limits consistent with Hauser and Holter Reservoirs. Since 2000, approximately 400 brown trout are harvested from Canyon Ferry annually. This alternative would essentially eliminate brown trout harvest in the reservoir.
- Alternative 2: Maintain current bag limit of 5 combined trout daily.
 - Although angler harvest plays a roll in brown trout abundance, other limiting factors may play a greater roll in reduced brown trout numbers than angler harvest. It cannot be determined if current brown trout bag limits are a limiting factor to brown trout abundance.

CANYON FERRY FORAGE FISH

Management Goal: Manage and enhance the forage base to support a productive multi-species fishery that includes walleye, trout, and yellow perch.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Yellow perch are the primary forage species in Canyon Ferry Reservoir.
- Although perch densities are low, there appear to be enough spawning stock to maintain the forage base at current walleye population levels.
- Suitable perch spawning and nursery habitat is limited by water level fluctuations, which limits development of shoreline vegetation.
- Recruitment of white suckers has steadily declined since expansion of the walleye population in the late 1990s.
- Zooplankton densities and community composition has remained relatively stable.

ISSUES & CONCERNS

- Maintain perch as a forage fish and an important sport fish.
- Habitat enhancement/manipulation is difficult due to annual water fluctuations.
- Introduction of a new forage species could upset the food web dynamics within the reservoir, with potential to harm the species it was supposed to benefit, as well as other sport and forage fish.
- A new forage species introduced into Canyon Ferry has a high potential to pioneer Hauser and Holter Reservoirs as well as the Missouri River above and below the reservoirs, resulting in negative effects in those waters.

- <u>Alternative 1</u>: (FWP Preferred) Give priority to increase current forage species to support a multi-species fishery. Informally identify potential new species that may be appropriate for the system.
 - o This alternative will maintain efforts to enhance numbers of yellow perch, suckers, trout, and other forage species in the reservoir. An informal review of potential new forage species has been completed and will be included in the Appendix of the final draft of the Management Plan. Informal review has shown that all potential species introductions could negatively affect the upper Missouri River reservoir system.
- <u>Alternative 2</u>: Begin a formal process to evaluate introduction of alternative species that would be part of the forage base identified in initial forage evaluations.
 - o Introduction of any new species into the system would require in-depth Environmental Analysis and public review and comment outside of this Management Plan process. All potential species and alternatives would be thoroughly evaluated. Recognize that the "no action" alternative (i.e., no new species introductions) must be evaluated.

RAINBOW TROUT

Management Goal: Rely on rainbow trout to provide cost-effective fisheries and recognize rainbow as one of the principle sport fish species in the reservoir system.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- Annual stocking of 8-inch rainbows has increased recruitment in all three reservoirs.
- Angler catch rates for rainbow is high in the reservoirs and the Hauser tailrace.
- Drought conditions have decreased the resident rainbow population in the Missouri River between Toston and Canyon Ferry.
- Holter Eagle Lake rainbow are currently used as an egg source for state fish hatcheries.

ISSUES & CONCERNS

- Cost-effectiveness of stocking larger sized fish.
- Flushing of fish after stocking.
- Hatchery system already running at full capacity.

ALTERNATIVES

No new formal management alternatives for rainbow trout were presented by the Citizen Workgroup. Management strategies for the reservoirs include continued stocking of 8-inch rainbows at current levels, continue use of Eagle Lake and Arlee strains, and stocking at times and locations to avoid predation and flushing. Strategies for the river sections include habitat enhancement for resident populations, and rely on migratory hatchery fish from the reservoirs to provide an additional component to the fisheries. Maintenance of Holter Eagle Lake rainbow as an egg source will continue to be a priority as well as habitat enhancement in tributary streams to increase abundance of wild fish. Use of surplus hatchery rainbow as a forage source may also be considered.

HAUSER TAILRACE MOTORIZED ACCESS

Management Goal: Manage social conflict and maximize safety on this stretch of the Missouri River.

CURRENT CONDITIONS & MANAGEMENT STRATEGIES

- No wake zone from Beaver Creek to Hauser Dam.
- Upstream travel is the only way for motorized boats access the canyon area below the dam.
- During periods of high flows it is not possible for motorized boats to move upstream without causing a wake.

ISSUES & CONCERNS

- Disturbance of spawning redds by boat and shore anglers.
- Safety of shore and wading anglers.
- Congestion of boats in areas with navigation hazards.
- Aesthetic experience of shore anglers.

- <u>Alternative 1</u>: Maintain the no wake zone from Beaver Creek to Hauser Dam.
 - o This represents the status quo and will require maintaining or increasing warden patrols in the area during periods of high use.
- <u>Alternative 2</u>: (FWP Preferred) Restrict boat use from Hauser Dam to Beaver Creek to non-motorized boats only.
 - This change would clarify the intent of the original restriction regarding boat use in the Hauser tailrace reach. This essentially limits all boat use in the tailrace, which could limit fishing accessibility for disabled anglers.
- <u>Alternative 3</u>: Restrict boat use from Hauser Dam to Cochrane Gulch to non-motorized boats only.
 - This alternative would be more restrictive of motorized boat use below Hauser Dam and eliminate most boater/shore angler conflicts. This limits all boat use in the Hauser tailrace, which could limit fishing accessibility for disabled anglers.